METHODOLOGY

Following methodology will be followed during PhD course.

1. Gather adequate and representative evidence of phenomena
2. Develop appropriate ways to analyze collected data
3. Demonstrate the validity or reasonableness of the findings or conclusions
4. Methodology & Validity
   a. Construct validity
   b. Internal validity
   c. External validity
   d. Reliability
5. Methodologies for Data Collection, Collation & Analysis
   a. Research paper Data
   b. Historical Data
   c. Internet Data
6. Archival Analysis
7. Literature Review/analysis
8. Design/Implementation
9. Contribution
10. Limitation
11. Conclusion

Software engineering is the practice of using selected process techniques to improve the quality of a software development effort. This is based on the assumption, subject to endless debate and supported by patient experience, that a methodical approach to
software development results in fewer defects and, therefore, ultimately provides shorter
delivery times and better value. The documented collection of policies, processes and
procedures used by a development team or organization to practice software engineering
is called its software development methodology (SDM) or system development life cycle
(SDLC).

**Waterfall Methodology**

All projects can be managed better when segmented into a hierarchy of chunks such
as phases, stages, activities, tasks and steps. In system development projects, the simplest
rendition of this is called the "waterfall" methodology, as shown in the following figure:

Content reviews are conducted between stages, and

Reviews represent quality gates and decision points for continuing.

The waterfall provides an orderly sequence of development steps and helps ensure the adequacy
of documentation and design reviews to ensure the quality, reliability, and maintainability of the
developed software. While almost everyone these days disparages the "waterfall methodology"
as being needlessly slow and cumbersome, it does illustrate a few sound principles of life cycle
development.